

REMARKS/ARGUMENTS

In view of the amendments and remarks herein, favorable reconsideration and allowance of this application are respectfully requested. By this Amendment, claims 1-3 have been amended and new claims 4-6 have been added. Thus, claims 1-6 are pending for further examination.

Claims 1-3 have been rejected under 35 USC 102(e) as being anticipated by Takeshita. Applicant submits that the amended and new claims herein clearly and patentably distinguish Takeshita. Thus, reconsideration and withdrawal of this rejection are respectfully requested.

Takeshita is directed to a technique capable of preventing the output terminal and the connection terminal from being damaged by avoiding a condition wherein the battery pack is improperly loaded to the loading portion of the battery loading device. In contrast, the present claims are directed to preventing the reverse insertion of the battery and thus the inverse connection of the battery terminals by quickly notifying the user that the storage battery is to be reversely inserted to the battery receiving portion. Therefore, Takeshita and the present invention are directed to significantly different problems.

As shown in Figures 4 and 5 of Takeshita, there are provided on the bottom surface 24 of the case 19 of the battery pack 5 the control recesses 28, 29, the control grooves 37 and the guide grooves 26. Furthermore, as shown in Figure 6, on the setting surface 45 of the loading section 43 of the battery loading device 6, there the control projections 65 and 66 respectively engaging with the control recesses 28 and 29, the

control pawls 72 engaging to the control grooves 37, and the guide projections engaging to the guide grooves 26. That is, in Takeshita, all the grooves or recesses and the projections are respectively formed on the bottom surfaces of the battery pack and the loading portion of the battery loading device. Therefore, in loading the battery pack 5 to the battery loading device 6, these engaging recesses and protrusions are hidden by the battery pack 5. In addition, these recesses and projections are formed in an "L" shape, and thus, if the battery pack 5 is to be loaded to the loading portion of the battery loading device 6, it is necessary to insert the battery pack 5 to the setting surface 45 of the device 6 in a direction orthogonally intersecting to the surface 45 and then to insert it in a parallel direction.

In contrast, in the present invention, as shown in Figures 1 and 2(b), the engaging portion 13 is formed on the upper surface of the battery housing 11 of the storage battery 10. As shown in Figure 1, the engaging projection 23 is formed on the upper portion of the inner wall of the battery receiving housing 21 of the battery receiving portion 20 and at the position corresponding to the engaging portion 13. As a result, in housing the storage battery 10 within the receiving housing 20, the engaging portion 13 and the engaging projection 23 may be engaged with each other, and those are not hidden by the battery 10. Furthermore, if the user intends to reversely insert the battery 10, the user cannot make the engaging portion 13 and the engaging projection 23 to be engaged with each other, and further, the protruding portion 22 is brought into contact to the housing 11, so that the insertion of the battery 10 into the receiving housing 20 is prevented from

both sides. In addition, in order to insert the storage battery 10 into the battery receiving housing 20, the user may slantingly insert the other end surface of the battery 10 against the other inner wall of the receiving housing 20, and then plunge the one end surface of the battery down. Applicant respectfully submits that the particular combination of features set forth in the amended and new claims herein are not taught or suggested by Takeshita.

The structure of Takeshita avoids the slanted insertion of the battery pack to the loading device by making the components 28, 29, 37, 36, 65, 66, 72 and 47 be L-shaped. However, the load of the pack into the device of Takeshita becomes troublesome. Furthermore, all the recesses and projections are hidden at the time that the battery pack is being loaded to the loading device by the battery pack. As a result, it is difficult for the user to find the correct loading position and to notice any reverse insertion. In contrast, the present invention avoids such disadvantages while preventing a reverse insertion.

With respect to new claim 4, the battery 10 can be smoothly loaded to the receiving housing 20. New claim 5 provides easy removal of the battery from the receiving housing. New claim 6 makes it possible to more surely prevent the reverse insertion and to smoothly insert the battery to the receiving housing.

In view of the amendments and remarks herein, Applicant believes that all of the pending claims clearly and patentably distinguish the prior art of record and are in condition for allowance. Thus, withdrawal of the rejections and passage of this case to issuance at an early date are earnestly solicited.

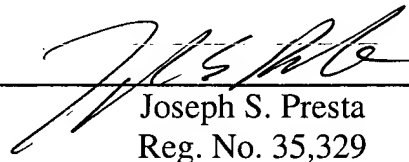
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Should the Examiner have any questions regarding this response, or deem that any further issues need to be addressed prior to allowance, the Examiner is invited to call the undersigned attorney at the phone number below.

Respectfully submitted,

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